



Workers Compensation Fund

## Preventing Workplace Slips, Trips & Falls





**Presented by  
Workers Compensation Fund**



## POP QUIZ!!!

**What is the best way to prevent slip/falls on slippery surfaces?**

- Walk very carefully.
- Keep floors and walkways clean and dry
- Wear slip resistant shoes
- Coat the slippery surface with non slip surface.
- Don't walk anywhere.
- Both c & d above.
- Why the heck are you asking me?



*StupidVideos.com*



## Preventing Workplace Slips, Trips & Falls

- Statistics
- Causes
- Prevention
- OSHA regulations relating to slip/trip/fall injury prevention




Bureau of Labor Statistics (www.bls.gov)										
TABLE 23. Incidence rates* for nonfatal occupational injuries and illnesses involving days away from work* per 10,000 full-time workers by selected worker occupation† and selected events or exposures leading to injury or illness, 2007										
Occupation	Total cases	Event or exposure leading to injury or illness*						Unemployment		
		Contact with objects				Overexertion		Total	In lifting	
		Total	Struck by object	Struck against object	Caught in or compressed or crushed	Fall from lower level	Fall from same level			
Total (1,158,870 cases)										
122.2	33.5	11.2	8.0	5.1	8.1	17.0	4.0	21.9	14.8	
Nursing aides, orderlies, and attendants	66.3	40.4	27.6	13.6	5.9	6.2	71.1	13.2	244.5	90.9
Labor and freight, stock, and material movers, hand	434.3	154.7	87.3	29.0	30.9	22.8	30.8	10.7	124.4	74.6
Food servers, nonrestaurant	415.1	115.2	76.7	30.3	6.0	5.4	123.3	14.8	67.0	43.7
Construction laborers	388.0	151.2	102.9	25.2	44.6	48.5	22.4	8.3	89.5	22.5
Truck drivers, light or delivery services	385.5	64.5	30.5	20.0	9.9	27.8	48.3	15.8	103.8	53.2
Producers	363.2	60.6	61.9	28.1	6.3	61.5	68.6	10.8	59.3	20.1
Emergency medical technicians and paramedics	340.9	26.8	14.6	8.3	1.4	12.1	31.3	8.8	177.6	127.8
Truck drivers, heavy and tractor-trailer	340.5	65.5	32.7	18.8	12.4	36.2	45.3	14.3	65.2	32.2
Welders, cutters, solderers, and brazers	335.8	158.0	90.7	10.0	20.2	10.7	20.8	4.0	57.5	31.0
Heating, air conditioning, and refrigeration mechanics and installers	313.4	90.8	42.3	31.1	4.1	42.1	18.0	14.3	39.4	28.4
Reservation and transportation ticket agents and travel clerks	304.3	72.8	22.5	20.5	23.5	10.9	38.2	12.6	126.7	79.8
Motor vehicle equipment mechanics, except engines	293.1	101.7	60.8	15.7	18.2	26.6	16.5	16.6	58.8	34.4
Carpenters	286.3	126.8	62.9	36.3	12.3	39.1	21.6	4.7	67.6	37.4
Dishwashers and meat cutters	277.5	141.3	53.0	43.5	33.2	—	34.6	3.5	70.0	50.3
Mails and housekeeping cleaners	275.0	51.9	24.0	20.3	4.6	16.2	66.1	11.5	64.0	24.3
Taxi drivers, seat and motorcycle	269.1	28.0	13.1	8.7	4.7	6.7	10.7	8.1	11.7	13.7
Janitors and cleaners, except maids and housekeeping cleaners	262.2	63.0	30.1	19.8	9.4	19.7	46.9	9.3	63.7	34.7
Cooks, institution and child care	261.3	75.8	47.6	17.4	9.3	2.1	52.7	6.8	43.1	23.9
Rail and truck mechanics and diesel engine specialists	257.3	80.4	45.2	14.5	8.6	10.1	23.7	4.4	57.3	20.9
Industrial machinery mechanics	255.6	102.0	47.0	17.0	32.6	12.3	20.0	4.2	52.1	23.7
Automotive service technicians and mechanics	252.5	105.5	50.7	31.7	11.7	7.0	15.9	5.5	48.7	24.6
Unemployment workers	243.2	31.7	10.1	9.9	4.2	4.3	80.7	2.8	90.5	20.7

Accident Type Group	NAICS Sector	Total # of Claims	Total # of Claims	Total Incurred	Average Total Incurred
Slip/Fall		5	5	36,227.76	\$7,245.54
	Accommodation and Food Services	294	294	1,274,793.53	\$4,336.03
	Administrative and Support and Waste Management and Remediation	172	172	1,108,794.40	\$7,620.37
	Agriculture, Forestry, Fishing and Hunting	49	49	165,349.59	\$3,374.48
	Arts, Entertainment, and Recreation	338	338	1,249,633.33	\$3,697.13
	Construction	796	796	10,881,231.55	\$2,899.51
	Educational Services	454	454	1,455,365.62	\$3,212.38
	Finance and Insurance	41	41	49,235.34	\$1,688.67
	Food, Beverage and Apparel Manufacturing	45	45	110,390.12	\$2,453.31
	Health Care and Social Assistance	592	592	2,694,467.54	\$4,551.47
	Information	95	95	509,143.56	\$5,359.41
	Management of Companies and Enterprises	8	8	59,319.99	\$7,413.00
	Metal and Machinery Manufacturing	195	195	909,878.41	\$4,668.04
	Mining	64	64	440,498.63	\$6,882.79
	Other Services (except Public Administration)	119	119	457,299.25	\$3,842.85
	Parcel Delivery and Warehousing	13	13	379,636.26	\$26,125.87
	Professional, Scientific, and Technical Services	81	81	494,778.94	\$6,106.38
	Public Administration	530	530	2,150,646.59	\$4,049.14
	Real Estate and Rental and Leasing	77	77	51,734.51	\$6,672.01
	Retail Trade	357	357	1,811,312.76	\$5,071.71
	Transportation	203	203	2,185,933.23	\$10,768.15
	Utilities	41	41	299,512.07	\$7,305.17
	Wholesale Trade	197	197	902,000.33	\$4,575.68
	Wood, Plastics and Chemical Manufacturing	161	161	826,610.71	\$5,134.23
Total Slip/Fall		4,927	4,927	38,482,636.76	\$7,810.44
Report Totals		4,927	4,927	38,482,636.76	\$7,810.44

## Statistics on Slips, Trips, Falls

### CLAIMS STATISTICS SUMMARY

WCF Policyholders for  
Calendar Year 2008

Accident Type	Total # of Claims	Total # of Claims	Total Incurred	Average Total Incurred
SLIP/FALL DIFFERENT LEVEL (25)	558	558	11,128,350.81	\$19,943.28
SLIP/FALL INTO OPENINGS (28)	81	81	412,727.90	\$5,095.41
SLIP/FALL LIQUID/GREASE (27)	205	205	649,084.32	\$3,166.26
SLIP/FALL ON STAIRS (33)	322	322	912,360.10	\$2,833.42
SLIP/FALL, DID NOT FALL (30)	207	207	1,255,560.19	\$6,065.51
SLIP/FALL, ICE OR SNOW (32)	1,220	1,220	6,037,643.92	\$4,948.89
SLIP/FALL LADDER/SCAFFOLD (26)	369	369	8,161,220.25	\$22,117.13
SLIP/FALL SAME LEVEL (29)	508	508	2,544,446.70	\$5,008.75
SLIP/FALL, TRIP, NOC (31)	1,457	1,457	7,380,642.51	\$5,065.64
<b>Report Totals</b>	<b>4,927</b>	<b>4,927</b>	<b>38,482,036.70</b>	<b>\$7,810.44</b>

## Statistics on Slip, Trip, Falls

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Run on January 9, 2009

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## Slip/Fall Different Level & Slip/Fall into Openings

- Unguarded floor openings or platforms
- Stepping off
- Jumping off
- Guard rails not adequate
- Lack of fall protection
- Slippery surface in combination w/level change

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## Slip/Fall Liquid/Grease

- Wet floors
- Spills
- Grease buildup
- Poor housekeeping
- Floors not well maintained
- Poor footwear



## Statistics on Slips, Trips, Falls

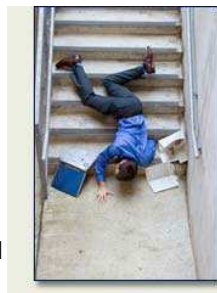
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## Slip/Fall on Stairs

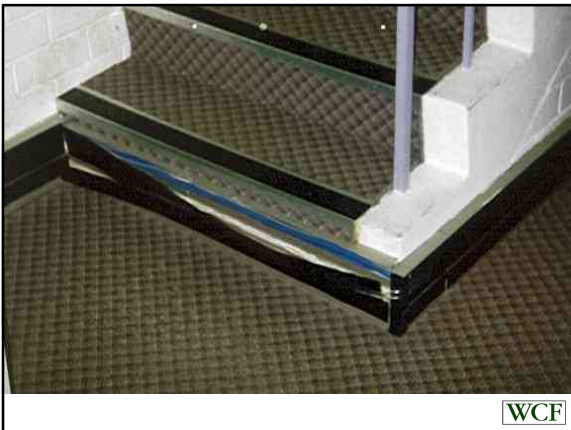
- Poor snow/ice removal
- Stairs not maintained
- Stairs not meeting OSHA requirements for fixed stairs
- Hand rails not present or not used
- Carrying objects that limit vision or prevent the individual from holding on to hand rail



## OSHA Requirements for Stairs:

- Must hold load of five times the normal live load anticipated but never less than a moving concentrated load of 1,000 pounds.
- 22" wide minimum
- Angle of rise between 30 and 50 degrees
- Slip-resistant treads and nosings
- Standard railings on open sided stairs, hand rails on closed stairs

(29 CFR 1910.24 Walking-Working Surfaces)



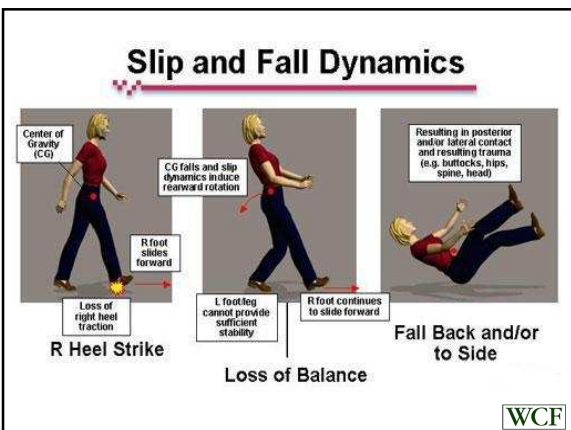
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### Slip/Fall Did Not Fall

- Huh????



### How can you get hurt by slipping and not falling?

- Muscle strains/sprains from reaction to imbalance. (Whiplash type injuries)
- Hitting a body part on an object when losing balance
- Your PRIDE!!!

## Statistics on Slips, Trips, Falls

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## Slip/Fall Ice or Snow

- Zero static friction to allow for traction
- Poorly designed footwear
- Poorly maintained parking lots & Walkways
- Hazardous Situation can build up very quickly



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## Statistics on Slips, Trips, Falls

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## Slip/Fall, Ladder/Scaffold

- Using the wrong ladder or inappropriate scaffolding
- Ladder/scaffold not secure
- Reaching
- Slippery ladder/scaffold surface
- Not using two hands when climbing ladder
- Standing on top or next to top "rung"







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## Slip/Fall Same Level

- Tripping over uneven surfaces
- Stepping down "wrong" on foot or rolling the ankle
- Tripping over obstructions in the work area
- Inappropriate footwear
- Slippery surface characteristics



## Statistics on Slips, Trips, Falls

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## Slip/Trip/Fall NOC

- All causes mentioned before and more!
- Poor housekeeping
- Inadequate footwear
- Human error
- Slippery surfaces (icy, smooth, wet, or greasy etc)
- Many more...





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## Prevention of Slip/Trip/Falls



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## Prevention

- Prevention of slippery surfaces
- Use of appropriate footwear
- Prevention of tripping hazards and uneven surfaces- AKA: SAFE HOUSEKEEPING!!
- Employee awareness and training



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## Prevention of Slippery Surfaces

- Inspect workplace for potentially slippery surfaces
- Measure the “slipperiness” of walking surfaces
- Replace slippery surfaces with non-slip ones
- Apply a non-slip coating to slippery surfaces
- Adhere to a strict housekeeping policy with respect to cleaning up fluids/liquids/greases

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## Prevention of Slippery Surfaces (continued)

- Adhere to strict maintenance of walk ways which may accumulate snow or ice.



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## The Slip Meter

- Instrument for measuring the coefficient of friction of a surface.



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## Replace or Coat??

- Consider cost – not only the cost of materials, but the cost of injuries from not acting!
- Some coating materials claim to be slip resistant and are not as effective as claimed.
- How long will the coating last as opposed to replacing the surface.



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## Anti-Slip Treatments

<http://www.stone-network.com/anti-slip-treatments.html>

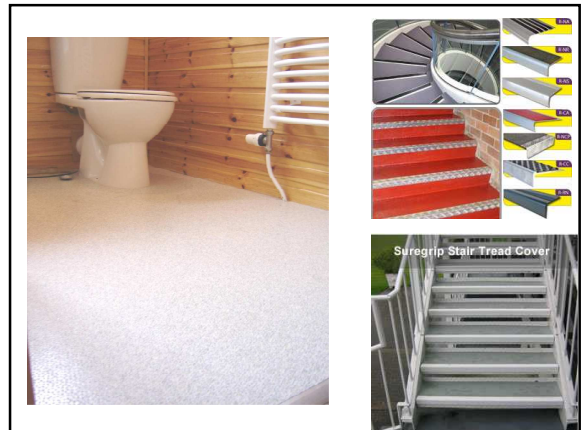
Provides a list of companies providing anti-slip treatments for floors.

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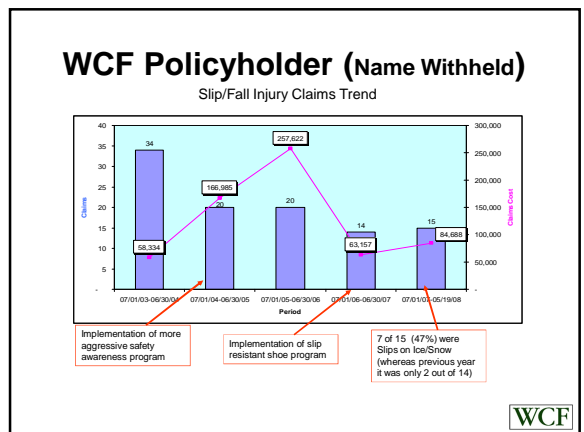
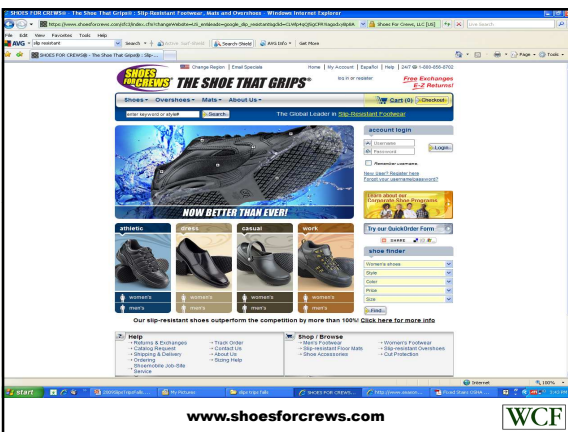
## Use of Appropriate Footwear

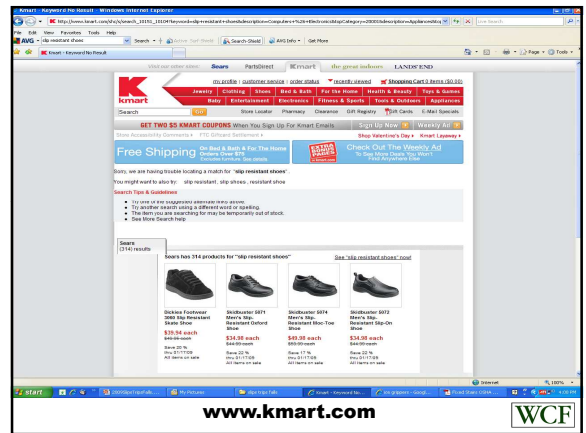
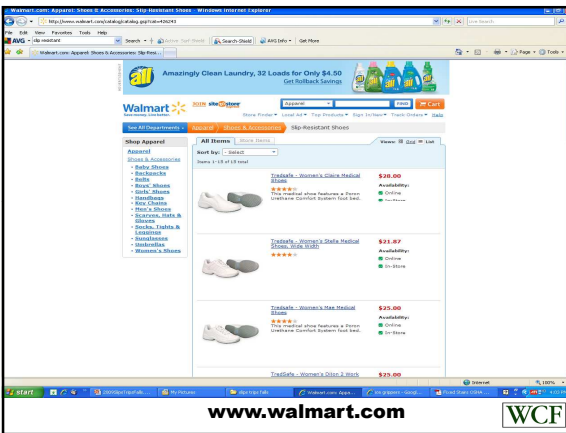
- Have a shoe policy in place if necessary
- Ensure employees wear appropriate footwear
- Slip resistant shoes are very effective for wet or greasy surfaces
- Ice grippers may be appropriate for employees working in snowy conditions

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## Is This Appropriate Footwear?

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## Prevention of Tripping Hazards

- **Housekeeping Policy & Program which includes regularly scheduled housekeeping inspections**
  - Grind down uneven surfaces
  - Repair pot holes in walkways and parking lots
  - Maintain clear walkways
  - Ensure cords, hoses and other items are stored properly out of the work areas
  - Organize work tools, equipment and workflow to ensure no tripping hazards are introduced

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## Prevention of Tripping Hazards



## Housekeeping Policy/Program

- See Handouts
- Inspection checklists
- Responsibility and Follow-up

**REMEMBER!! A well organized, well kept work place is also more efficient and will have less down time, less injuries relating to housekeeping, and will in general have happier employees.**

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## Employee Awareness & Training

- Employees should be responsible for their own work areas.
- Employees should be able to recognize a slip/trip/fall hazard specific to their work environment.
- Employees should be held accountable for wearing appropriate footwear and following company safety policies.



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## OSHA Regulations Relating to Slip/Trip/Fall Injury Prevention General Industry

- 1910 Subpart D - Walking-Working Surfaces
  - 1910.21 - Definitions.
  - 1910.22 - General requirements.
  - 1910.23 - Guarding floor and wall openings and holes.
  - 1910.24 - Fixed industrial stairs.
  - 1910.25 - Portable wood ladders.
  - 1910.26 - Portable metal ladders.
  - 1910.27 - Fixed ladders.
  - 1910.28 - Safety requirements for scaffolding.
  - 1910.29 - Manually propelled mobile ladder stands and scaffolds (towers).
  - 1910.30 - Other working surfaces.

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## OSHA Regulations Relating to Slip/Trip/Fall Injury Prevention Construction

- 1926 Subpart C – General Safety & Health Provisions
- 1926 Subpart L – Scaffolds
- 1926 Subpart M – Fall Protection
- 1926 Subpart X – Ladders

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## Additional Resources

- [www.osha.gov](http://www.osha.gov)
- <http://www.cdc.gov/nasd/docs/d000001-d000100/d000006/d000006.html>
- [http://www.ccohs.ca/oshanswers/safety\\_haz/falls.html](http://www.ccohs.ca/oshanswers/safety_haz/falls.html)
- [www.wcfgroup.com](http://www.wcfgroup.com)

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## Questions/Comments?

Thank You!!

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